

Resolution of the Channel Islands National Marine Sanctuary (CINMS) Advisory Council in the Matter of Requesting Investment of Financial Resources to Further Acoustic Monitoring and Research at the CINMS

Whereas, scientists, managers, conservationists, and concerned citizens recognize major changes are taking place in our oceans from drivers that include climate change, ocean acidification, and anthropogenic noise. To better manage our oceans we must understand how these impacts are changing our oceans and affecting the marine life in them; and

Whereas, marine animals are being exposed to an unprecedented level of frequency and intensity of sound in the world's oceans from offshore energy exploration and development, commercial shipping and transportation, military sonar and other activities; and

Whereas, for many marine animals the ocean is an acoustic world, where hearing is more important to their behavior and survival than sight; and

Whereas, we are only now just starting to understand how the introduction of human induced sound in the ocean may negatively affect marine life by physically injuring or killing animals, masking sounds used to locate, feed, and communicate, or causing abandonment of feeding and/or nursery habitat; and

Whereas, the study of ocean acoustics is complex; thus, comprehensive studies have generally not been carried out and only recently have the right scientific tools been developed to understand the implications human induced sound may have on marine life; and

Whereas, it is impractical to study the impacts of sound everywhere in the ocean, and National Marine Sanctuaries are ideal places to invest financial resources to study human induced sound and the potential impacts this sound may have on marine life; and

Whereas, Sanctuaries are sentinel sites, selected for their unique natural resources these areas are places where protection, enhancement, and conservation of marine biodiversity and cultural heritage occurs and certain types of activities and uses are prohibited. Therefore, Sanctuaries are ideal places for developing an overall baseline for the health of our marine environment through conducting ocean-related science, research, and monitoring; and

Whereas, Sanctuary managers can also utilize acoustic monitoring to do useful work like monitoring and enforcing marine protected areas, imaging, and ocean circulation monitoring; and

Whereas, the CINMS is one of two National Marine Sanctuary sites where initial acoustic research has been done, thus there is an opportunity to build on existing research to develop ground-breaking acoustic studies; and

Whereas, the CINMS is located in a biodiversity hot spot where human activities converge with high concentrations of marine life, thus providing a unique opportunity to study human induced sound on a variety of rich biota; and

Whereas, the CINMS Advisory Council adopted a report in 2004 ("Anthropogenic Noise and the Channel Islands National Marine Sanctuary: How Underwater Noise Affects Sanctuary



Resources, And What We Can Do About It") that identified sound as a critical issue facing the Sanctuary and recommended increased monitoring and research; and

Whereas, the CINMS has established collaborative partnerships with research institutions, universities, and other government agencies that will facilitate acoustic research opportunities; and

Whereas, the CINMS and the Sanctuary Advisory Council can interpret and communicate research findings to the public and stakeholders; and

Whereas, monitoring and research within the CINMS will provide information about the effects sound can have on coastal and marine ecosystems and facilitate action and response not only in our Sanctuaries but also throughout our oceans; and

Whereas, to be effective in its monitoring, research and education activities the CINMS needs adequate and stable funding, equipment and personnel resources.

NOW, THEREFORE, BE IT RESOLVED that the Channel Islands National Marine Sanctuary Advisory Council request the following:

- Increasing financial investment for capital improvements, including but not limited to new Automated Information System (AIS) receivers, transmitters and towers, High Frequency Acoustic Recording Packages (HARPS), and computer loggers. Increased investment in this equipment will help improve upon and expand acoustic monitoring efforts in and around the CINMS.
- 2. Pursuing funding to ensure adequate and stable personnel resources. Establishing a full time equivalent position would provide stability. Recognizing the current economic situation, establishing a post-doctoral or research fellowship could provide stability in the interim and continue and extend the existing acoustic work ongoing within the Sanctuary and expand the Sanctuary's capacity for future acoustic work.
- 3. Providing sufficient resources to establish a stable source of vessel time and field operations support to continue acoustic monitoring and research efforts in the CINMS. Over the last few years CINMS staff ingenuity has sustained the acoustic program through partnerships and grants. However, this approach is not a sustainable long term substitute for stable, dedicated resources.
- 4. The CINMS Superintendent transmit this resolution to all relevant parties, including but not limited to the Regional Director of the West Coast Region of the Office of National Marine Sanctuaries, the Director of the Office of National Marine Sanctuaries, the NOAA Administrator, the Secretaries of Commerce and the Interior, and the Department of the Defense. These agencies may have the capability to leverage additional resources that can facilitate implementation of the above recommendations.